

NASA TECH BRIEF



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Improved VHF Direction Finding System

The innovation described in this Tech Brief is a direction finding device operating at very high frequencies. Existing methods require loop antenna, mechanical rotation, and large structures; if an unmanned configuration is desired, this innovation should be applicable.

A group of four elements, each consisting of two perpendicular dipoles, are arranged in a square. Four of the dipoles are vertical and four are horizontal. Direction information is extracted in the form of a direction cosine analog. Conventional phase measuring equipment can be used to determine the direction of the received (incoming) signal.

To avoid multipath signals (scattering) from ground reflections the array should be shielded by a metallic ground plane.

Note:

1. Documentation is available from:
Clearinghouse for Federal Scientific
and Technical Information
Springfield, Virginia 22151
Price \$3.00
Reference: TSP69-10378

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

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under contract to
Marshall Space Flight Center
(MFS-20439)

Category 01